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Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Price Cap Performance Review For Local Exchange Carriers	)	CC Docket No. 94-1
	)	
	)	
Access Charge Reform	)	CC Docket No. 96-262

Comments of the
Ad Hoc Telecommunications Users Committee

Lee L. Selwyn
Patricia Kravtin
Economics and Technology, Inc.
One Washington Mall
Boston, MA 02108-2617
(617) 227-0900

Economic Consultants

James S. Blaszak
Levine, Blaszak, Block & Boothby, LLP
2001 L Street, NW
Suite 900
Washington, DC 20036
(202) 857-2550

Counsel for
The Ad Hoc Telecommunications
Users Committee

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Summary

The current X-Factor is too low. The Commission should raise the X-Factor to at least 7.23%, and reasonably could raise it to over 10%. In an turn of events suggesting that justice may sometimes be served, the record in this remand proceeding -- a proceeding that the Commission initiated as a result of the price cap LECs' appellate assault on the Commission's prescription of a 6.5% X-Factor -- now calls for an X-Factor substantially higher than 6.5%.

The higher X-Factor is the product of considering information that was not available to the Commission in 1997, the year in which it set the X-Factor at 6.5%. The Commission's Staff has produced two high quality studies since the court remanded to the Commission its decision to prescribe a 6.5% X-Factor. The 1999 Staff Total Factor Productivity (TFP) Study corrects material errors in the 1997 TFP Study, errors which would, if uncorrected, result in a significant understatement of the X-Factor. The Staff 1999 TFP Study also corrects some relatively minor, but not insignificant, errors in the methodology of the 1997 TFP Study. The Staff 1999 Imputed X-Study corroborates that the corrections and results made by the Staff 1999 TFP Study are conservative. If anything, the Imputed X-Study demonstrates that the results of the Staff 1999 TFP Study may understate the price cap LECs' rate of productivity growth.

In response to the Commission's inquiry on whether it should retain a Consumer Productivity Dividend (CPD) component to the X-Factor, Ad Hoc's Comments reason that post-1995 data show that the LECs' productivity growth rate continues to increase. Combined with the efficiency incentives that the

elimination of sharing has generated, the current 0.5% CPD is understated. It should be increased to at least 0.95%. Indeed, a strong case can be made for setting the CPD at 4%. Failure to increase the CPD will unjustly enrich the LECs and subject consumers to rate increases at a time when they should be enjoying substantial rate decreases.

The Commission cannot reasonably disregard the new information provided in the Staff studies referenced above or in these comments. Neither the court remand order that is the cause of this proceeding nor common law limits the Commission to consideration of only the information that it had before it when it adopted its *Fourth Report and Order.*

Thus, the Committee respectfully requests that the Commission promptly conclude this proceeding with issuance of an order that increases the X-Factor to at least 7.23%.

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The Ad Hoc Telecommunications Users Committee hereby submits its comments in response to the Commission's November 15, 1999 Further Notice of Proposed Rulemaking in the above-captioned proceedings.[1] The Further Notice is in response to an order of the United States Court of Appeals for the District of Columbia Circuit.[2] The Court's order affirmed portions of the Commission's May 1997 Price Cap Order, but reversed and remanded other parts of the same Order.[3] Specifically the Court ordered that

> The FCC's decisions to select 6.0% as the first component of the X-Factor and to retain the 0.5%

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1 *Price Cap Performance Review for Local Exchange Carriers,* Further Notice of Proposed Rulemaking, CC Docket Nos. 94-1 and 96-262, FCC 99-345, (rel. Nov. 15, 1999), ("Further Notice"). By Order of the Chief, Competitive Pricing Division, Common Carrier Bureau (rel. Dec. 14, 1999, DA 99-2806), the dates for filing comments and reply comments in this proceeding have been extended to January 7, 2000 and January 24, 2000, respectively.

2 *USTA v. FCC,* 188 F.3d 521 (D.C. Cir. 1999) (" the Court Order").

3 *Price Cap Performance Review for Local Exchange Carriers,* Fourth Report and Order, CC Docket No. 94-1 and Second Report and Order, CC Docket No. 96-262, 12 FCC Rcd 16642 (1997) ("Fourth Report and Order").

> CPD are reversed and remanded to the agency for further explanation.[4]

I. INTRODUCTION

In the Further Notice, the Commission seeks comment on three possible bases for represcribing the X-Factor: (1) the 1997 total factor productivity ("TFP") study conducted by the Commission's Staff ("1997 Study"); (2) a new 1999 Staff TFP study ("1999 Study"); and (3) a new Imputed X study done by its Staff ("Imputed Study").[5] In addition, the Commission seeks comment on the inclusion of a consumer productivity dividend ("CPD").[6] The Commission also solicits comment on whether in assessing the foregoing matters it should consider the best information now available or limit itself to information available prior to the Court Order.[7]

The Commission should rely upon the two new Staff studies in represcribing the X-Factor, both for the period affected by the Court's remand (July 1, 1997 to June 30, 2000) and for the period July 1, 2000 going forward. In addition to containing stale data at this point, the 1997 Study suffers from a number of serious anomalies that are corrected in the new 1999 Study. The two new Staff studies are highly corroborative and benefit from important revisions to reflect both updated data and improved methodologies. The availability of three

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4 *USTA v. FCC, supra*, at 531.

5 *Further Notice* at para. 3.

6 *Id.*

7 *Id.* at para 42

additional years' worth of data is particularly significant since those years provide valuable data regarding the LECs' experience in the post-price cap period. The data are important because following the Commission's implementation of price caps regulation for local exchange carriers (LECs), the LECs incentives profoundly changed as they responded to the new form of regulation. As explained below, the Court Order does not prevent the Commission from considering such data. Indeed, the Commission would act unlawfully were it to ignore relevant and important recent data and rely instead upon the 1997 Study with its proven defects.

In addition, the Commission would be fully justified in including a CPD in the X-Factor. A CPD would account for two notable "incentive-generating" events that have measurable salutary effects upon LEC productivity: (1) the adoption of price cap regulation vis- à -vis rate of return regulation; and (2) the elimination of sharing. These comments identify two alternative methods for quantifying the CPD necessary to offset the elimination of sharing. Both of these methods produce results that show the Commission's existing 0.5% CPD to be highly conservative.

As explained below, the Commission not only is permitted to consider, but now must consider, additional data relevant to specification of the X-Factor and retention and specification of the CPD. The additional information, much of which is included in Appendices A, B and C to the *Further Notice*, demonstrates that the 6.5% X-Factor is, if anything, understated. These comments show that the X-Factor should be increased to at least 7.23% or as high as 10.33%.

II. The Commission Should Consider Information Developed Since Issuance Of The Court's Order.

The Commission has substantial, but not unlimited, procedural options available to it in considering the matters for which the Court has ordered the Commission to provide further explanation. The Court Order expresses concern that (1) the factual predicates for the Commission's decision to retain the CPD and to set the "X-Factor" at 6.5% may not be supported by sufficient evidence and/or (2) the Commission did not adequately explain its rejection of certain data series and its retention of the CPD.[8] The Court Order does not limit what the Commission may consider on remand to address these concerns. A well-known treatise on Administrative Law observes that,

> The range of options available to the agency on remand depends on the basis for the judicial decision setting aside the agency's original action. ... If the judicial decision was based on the conclusion that one or more of the factual predicates for the agency action was not supported by sufficient evidence, the agency can reopen the record of the proceeding to obtain additional evidence relevant to those factual issues. If the judicial decision was based on inadequate agency reasoning to support the action, the agency can supplement its statement of reasons, with or without reopening the record to receive additional evidence.[9]

The Court Order does not limit the Commission to considering a stale record. Indeed, if the Commission were to refuse to consider information relevant to the proper specification of the "X-Factor" and the CPD, including the work of its own

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[8] *See, the Court Order.*

[9] III, K. Davis and R. Pierce, Administrative Law Treatise, §18.1, 1994.

staff, it would act in an arbitrary and capricious manner; and invite another reversal and remand.[10]

III. The Commission Should Use The Adjustments To The 1997 Staff TFP Study Embodied In The 1999 Staff TFP Study In Represcribing The X-Factor.

As highlighted in the *Further Notice*, in late 1998, several parties including Ad Hoc identified numerous problems with the way in which the 1997 Study had estimated LEC total factor productivity (TFP).[11] The most serious of these problems related to: (1) the calculation of the cost of capital input based upon residual LEC revenues; and (2) the calculation of the local service output index based upon the number of calls.[12] The Commission must correct these deficiencies.

A. External Indices, Rather Than LEC Realized Rates of Return Should Be Used To Calculate The Cost Of Capital Input Used In The TFP Studies.

The first problem, which Ad Hoc termed as the "X-Factor revenue/cost of capital anomaly," surfaced upon review of the initial update of the 1997 Study to include data points for 1996 and 1997. The update was performed pursuant to the Commission's October 5, 1998 "Refresh the Record" Public Notice (1998 Notice). As explained by Ad Hoc in its 1998 comments, the methodology used in

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[10] *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43-44 (1983).

[11] *Further Notice* at para. 28.

[12] *See* Reply Comments of The Ad Hoc Telecommunications Users Committee, CC Docket No. 94-1 (Nov. 9, 1998), at 16-18, 19-20, ("Ad Hoc Reply Comments (1998)").

the 1997 Study to develop the cost of capital produced disturbingly anomalous results by in effect utilizing the *realized* return on investment as an estimate of the exogenous cost of capital:

> In particular...the more excessive the ILECs' earnings become, the *lower* the resulting TFP. This effect results because as earnings rise to supracompetitive levels, the cost of capital component of the TFP calculation is also increased, thereby raising input costs and reducing productivity growth relative to the given level of output. If this process is permitted to continue unabated, the ILECs would use the FCC model to justify a *decrease* in the X-Factor, thereby permitting their profits to become even more excessive which, in turn, would be plugged into the same model in a subsequent period, thereby resulting in an even lower X-Factor. If left uncorrected, profits would soar, the X-Factor would continue to shrink, and prices and profits would continue to rise. Surely, the Commission did not intend to put ratepayers in this economic death spiral. Rather than converge upon a correct estimate of TFP growth over time, the model's use of realized earnings as the capital input causes it to degenerate into a process that persistently and increasingly understates TFP.[13]

Ordinarily, the cost of capital confronted by any firm is exogenously determined by the combined effects of capital market conditions and the risk that investors ascribe to the firm's business. In competitive markets, it is convenient to measure the input cost of capital as the firm's overall return on investment (ROI), since the ROI will come to reflect the exogenous capital market rate and risk conditions. However, the specific capital cost measure that the 1997 Study utilizes produces anomalous results under the conditions in which the LECs operate — *i.e.,* where the firm possesses substantial market power, confronts

[13] *Id.*, at 18-19.

little if any effective competition, and is permitted to earn sustained supracompetitive profits.

The 1999 Study corroborates and adjusts for the cost of capital anomaly by using a competitive price index series as a surrogate for the annual change of the cost of capital in a competitive market. Specifically, the 1999 Study uses the Moody's Baa corporate bond rate reported in the 1999 Economic Report of the President (Table B-73) to calculate the adjustment, but notes that "any index for a competitively determined cost of capital should be acceptable because changes in the cost of capital in competitive markets is similar across markets" and that "the use of a different series would yield comparable results given the competitive nature of financial markets."[14]

Ad Hoc performed sensitivity analyses of the TFP results using the other cost of capital price indices identified as alternatives in the 1999 Study. Ad Hoc's analyses confirmed that TFP results using these alternative price index series were as indicated in the 1999 Study, indeed comparable to those produced using the specific index chosen in the 1999 Study.[15] Although there is likely to be dispute over the specific competitive price index that should be adopted, whatever index is ultimately used should, like the Moody's Baa corporate bond

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14 *Further Notice* at Appendix B, page 47, footnote 35.

15 Ad Hoc's sensitivity analyses revealed total company TFP results using the various cost capital price indices for the period 1991 to 1998 falling in the range of 6.13% to 6.33%, as compared with the base case of 6.28% (Ad Hoc's base case result of 6.28% varies slightly from the Commission's reported result of 6.33%, the difference attributed to the correction of minor spreadsheet errors found in the 1999 Study. Identification of these minor spreadsheet errors along with Ad Hoc's sensitivity analyses are provided in Attachment 1 and 2 to these comments.

rate used in the 1999 Study, be based upon publicly available and readily verifiable information.

B. Minutes, Rather Than Calls, Should Be Used To Calculate Local Service Output In Total Company TFP Studies.

The second major problem, identified by Ad Hoc and others in their 1998 comments and corroborated in the 1999 Staff Study, deals with the use of *calls* rather than *minutes* in measuring the local service component of total company output used in the 1997 Study TFP calculation. In the updated total company TFP results that Ad Hoc submitted to the Commission in its 1998 comments, Ad Hoc corrected the Commission's model to use local dial equipment minutes (DEMs) to measure local output, based upon the finding that the number of local calls, as used in the 1997 Study, clearly understates growth in output.[16]

Ad Hoc noted that the particular choice of *calls* vs. *minutes* as the measure of local output volume was not specifically addressed in the 1997 Study.[17] Ad Hoc pointed out that, ordinarily, the use of local calls versus minutes might not pose any problem since the purpose of making these output measures is to identify year-over-year *relative* changes in output volume, and further that if the average duration of local calls were constant over time, the use of local calls would be equivalent (on a relative basis) to the use of local minutes.[18] However, as pointed out by the Commission in the Further Notice, the average local call duration has been steadily *increasing* since 1992, largely attributable to the

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16 *See*, *Ad Hoc Reply Comments (1998)*, at 20.

17 *Id.*

18 *Id.*

increasing usage of the network for Internet access.[19] As a result of this systematic and sustained increase in local call duration, the use of a local *call* volume statistic will decidedly understate year-over-year changes in local usage output.

Ad Hoc had noted in its 1998 comments that there was no obvious reason why local output should be measured in terms of calls whereas intrastate and interstate toll and access output were measured in terms of minutes, particularly given that the continued use of calls distinctly understates the growth in total company output.[20] In fact, there is significant economic foundation for using minutes as the output measure from the standpoint of both the underlying demand for and provision of LEC local service.

LECs traditionally sell local service on a flat-rated basis using what amounts to a "capacity-based" rather than a "usage-based" charge. Under a flat-rated system, charges are not directly related to either the number of calls or the number of minutes. However, a customer's decision to purchase additional units of capacity in connection with increasing local service needs is linked directly to the number of minutes carried over that capacity, not to the number of calls.[21]

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19 *Further Notice* at Appendix A at 23.

20 One possible explanation is that, historically, limitations on local usage measurement equipment may have limited the availability of accurate local DEMs data. That condition is, of course, no longer present. Virtually every central office switch in operation in the use is either analog electronic or digital in nature, and all of these switches are fully capable of providing accurate local minutes-of-use data.

21 An individual voice-grade line or trunk is capable of carrying a maximum of 36 CCS of usage (3600 seconds) in any one-hour period. Occupancy or utilization of that potential capacity is a function of total call duration during the (typically) busy hour, not the number of calls or call attempts. Thus, the same 75% utilization level will exist for the line or trunk if it is used to carry one call of 2700 seconds' duration, or 100 calls of an average of 27 seconds of duration each, in

The increasing trend in additional line sales and complimentary vertical services enjoyed by the LECs is directly attributable to the Internet usage, which generates significant additional minutes but not a comparable increase in number of calls. The ILECs have argued that to have an "economically meaningful X-Factor, the measure of output used in the model must correspond to outputs driving revenue growth."[22] The ILECs' argument, however, supports the use of minutes, not calls, since the growth in minutes is the driving force behind the ILEC's local service revenue growth. The system of charges in place by the LECs, *i.e.* flat rate (as opposed to per minute) system of charges does not alter the fact that the underlying source of ILEC local revenue growth in increased minutes of usage.

Moreover, from a provisioning standpoint, the price cap LECs have had the opportunity, at least in connection with interstate access charges, to introduce separate call set-up charges in addition to per-minute charges.[23] Yet,

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the busy hour. A user's total traffic demand in terms of aggregate call duration, not the number of individual calls, will dictate the number of lines or trunks that the user requires.

22 Ex Parte Letter from Linda L. Kent, Associate General Counsel, USTA, to Magalie Roman Salas, Secretary, FCC, dated April 14, 1999, submitting "Current Issues in Modeling the Commission's X-Factor: A Rebuttal of IXC Arguments", prepared by Frank M. Gollop, April 9, 1999, at 8-9.

23 *Price Cap Performance Review for Local Exchange Carriers*, First Report and Order, CC Docket No. 94-1, 12 FCC Rcd 15982 (1997), at 16006, 16036-16037.

the LECs have generally chosen not to do so.[24] The fact that LECs have generally chosen not to introduce separate per-call price components provides important corroborative evidence of the secondary nature of the per-call (vis-a-vis per-minute) component of their service in terms of underlying economic cost structure.

The 1999 Study corroborates and adjusts directly for the local service output measurement error by substituting dial equipment minutes for number of calls in the development of the local service output index. For all of the various reasons reviewed herein, there is clearly a strong economic rationale for this adjustment.

C. Other Adjustments Made In The 1999 Study Are Also Justified.

In addition to the two major corrections just discussed, the 1999 Study makes a few other adjustments resulting the availability of updated data, namely: (1) the inclusion of data for the years 1996 through 1998; (2) an adjustment to the labor input for the disproportionate costs of employee buyouts taking place in 1992 through 1995, and (3) the use of a revised BLS series on economy-wide multifactor productivity.

With respect to the inclusion of additional years of data, it is common practice for the researcher to include the most current data available. Indeed,

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24 An examination of existing intrastate and interstate tariffs for the ILECs reveals only a few examples of call set-up type charges: Pacific Bell has disaggregated call set up charges for local switching. *See,* Pacific Bell Schedule Cal. PUC No. 175-T, Section 6.8.3(A) (10th Revised Sheet 226). Bell Atlantic in Massachusetts has rates for local measured business service that is disaggregated into per-message and per-minute components. *See*, New England Telephone & Telegraph Co., DPU-Mass.-No. 10, Part M Section 1.5.1 (First Revised Page 15, Original Page 16). Finally, Ameritech's SS7 charges in its Interstate Access Tariff are composed of two separate components, each of which is charged on a per-message basis. *See*, Ameritech Tariff FCC No. 2, Sections 18.1.1 and 6.9.1(D) (21st Revised Page 213.1, and Original Pages 656-658).

assuming legal authority to do so, there would be no rationale justification for artificially truncating the data series used in the 1999 Study to 1995, when data for the years 1996 through 1998 was readily available from public sources. Similarly, the 1999 Study's use of an updated series published by the BLS on economy-wide multifactor productivity is also consistent with best research practices. The BLS is one of the leading governmental sources of economy-wide data, and there is no valid reason to maintain the BLS series used in the 1997 Study in the 1999 Study given the BLS's publication of a revised series.

Finally, the adjustment made to the labor input in the 1999 Study to reflect the disproportionate costs of employee buyouts taking place in 1992 through 1995 corrects for an important source of bias in the calculation of the price of labor. But for this correction, labor costs would be artificially inflated (and consequently, TFP growth artificially depressed) in the early years following the adoption of price caps when many employees were offered significant monetary incentives to leave the company. While accounting rules typically treated these buyout costs as one-time charges against current earnings, from an economic perspective, these one-time costs, also referred to as "excess benefits," are exogenous non-recurring events properly removed from the historical analysis of TFP.[25] The adjustment made in the 1999 Study relies on publicly available data sources and the methodology employed appears reasonable.

In summary, the two major adjustments made in the 1999 Study are fully justified. The other adjustments reflected in the 1999 Study also stand on solid

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[25] *Further Notice* at Appendix B, page 50.

economic grounds. Accordingly, Ad Hoc strongly supports these adjustments and the use of the 1999 Study in represcribing the X-Factor both for the period affected by the court's remand and for the period going forward.

IV. Productivity Results for the Period Following the Introduction of Price Caps Represent the Appropriate Basis for Determining the Reasonable Range of the X-Factor for 1997 and Beyond.

At paragraph 33 of the *Further Notice*, the Commission seeks comment on the time period over which productivity results should be considered as a basis for establishing the X-Factor for application from the effective date of the *Fourth Report and Order* (*i.e.*, July 1, 1997) forward. The Commission observes that "[i]n our determination of the reasonable range in the *1997 Price Cap Review Order*, we gave recent years more weight than more distant years," and asks if "the period under price cap regulation [should] be given more weight than the period under rate-of-return regulation."[26]

There are, in fact, a number of compelling reasons why more recent years' results should be afforded disproportionately greater weight than experience from the more distant past. The Committee has, for some time, argued that the accelerating pace of technological change in the telecommunications industry has produced unprecedented changes both in endogenous productivity growth within the incumbent LECs themselves as well as the exogenous productivity gains in those sectors that supply capital equipment to the ILECs, the latter being reflected in the persistently declining prices of telecommunications switching and

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[26] *Further Notice*, at para. 33, footnotes omitted.

transmission plant and equipment.[27] Indeed, Ad Hoc has argued that it is not sufficient even to limit consideration of input price effects to the changes in the nominal prices of ILEC capital inputs, that one must *additionally* consider and capture the *hedonic* changes in ILEC capital inputs that have the effect of bringing their prices down even further as the capabilities and capacities of individual plant components expand.[28] While the Commission has thus far declined to adjust ILEC input prices for hedonic effects,[29] at the very least their undisputed existence demands that the greatest weight be afforded to the productivity experience of the most recent time periods, where the ILEC will have realized efficiency gains as a direct consequence of the capability and capacity improvements in the individual capital products that it uses. For example, today most digital transmission and switching systems are capable of being tested remotely and, in many cases, even being repaired remotely, thereby reducing the need for on-site maintenance personnel and for physical visits by off-site repair crews. While the introduction of capabilities such as these should be reflected in the input prices of the capital assets themselves (as an hedonic effect equivalent to an additional decrease in the nominal dollar price of the item), at the very least the salutary effects upon endogenous ILEC productivity arising from such product improvements and enhancements demands disproportionate weight.

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[27] Comments of The Ad Hoc Telecommunications Users Committee, CC Docket No. 94-1 (Jan. 16, 1996), Attachment: *Establishing the X-Factor for the FCC Long-term LEC Price Cap Plan*, at 31 ("Ad Hoc Comments (1996)").

[28] *Id.*, at 36-42.

[29] *Fourth Report and Order*, at para. 67.

Such weighting could be accomplished either by weighting the later years more heavily, or even by dropping the earlier years altogether. One thing is, — or certainly should be, — abundantly clear: In the context of the telecommunications industry of the 21st century, the late 1980s are, for all relevant purposes, ancient history, and productivity experience during that time frame has little to no predictive value in the period embraced by the *Fourth Report and Order* and beyond.

But separate and apart from these technologically driven effects upon LEC productivity, the introduction of price cap regulation for dominant LECs in 1991 must certainly be seen as a watershed event. In adopting price cap regulation for LECs in its 1990 Order in CC Docket 87-313,[30] the Commission specifically *expected* the new regulatory paradigm to stimulate and incent these carriers to increase their efficiency and reduce their costs overall.[31] Among other things, the de-linking of prices and costs was expected to *remove* RORR-driven incentives for LECs to "gold plate" their asset base as a means for increasing total returns, and in so doing to increase plant utilization and drive costs down. Indeed, in explicit anticipation of these salutary effects of this new regulatory regime, the Commission included the so-called CPD in the price cap index (PCI) formula. As of the date of these comments, the LECs will have been operating under price cap regulation at the federal level for some eight and a half years; in some cases (*e.g.*, California, New York), state-level price cap or other forms of "incentive"

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[30] *Policy and Rules Concerning Rates for Dominant Carriers*, Second Report and Order, CC Docket No. 87-313, 5 FCC Rcd 6786 (Sept. 19, 1990) ("Second Report and Order").

[31] *Id.,* at paras. 1-3.

regulation has been in effect even longer.[32] Price cap LECs have thus had nearly a decade to adjust to the new regulatory regime, and inclusion of pre-price cap productivity results at this juncture would serve no purpose other than to dampen the *apparent* productivity results achievable under price caps.

Given that the appropriate starting point for the examination of LEC productivity experience is the onset of price caps at the federal level (*i.e.,* July 1, 1991), that still leaves open the question of how many years under price caps should be included in that assessment. When the Commission addressed the matter of the X-Factor in the *Fourth Report and Order*, it had available to it data that ended as of December 1995. In the intervening period and simply as a consequence of the passage of time, three full additional years' worth of data have now become available. Logic and the need for the most current and complete data set argue strongly for this later data to be included. The sole purpose of using historic productivity and performance data is to *predict* conditions that will exist in the future. It makes no sense to ignore these three most recent years of data merely because they were not before the Commission when it conducted the last price cap review if the more recent data set improves the overall predictive quality of the TFP analysis and the resulting X-Factor that is derived therefrom -- which is clearly the case -- The Commission would act unreasonably if it were to fail to consider this data.

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32 The California PUC's "New Regulatory Framework" applicable to Pacific Bell and to GTE-California became effective as of January 1, 1990. I.87-11-033, D.89-10-031, 33 CPUC 2d 43 (1989); New York Public Service Commission, *Proceeding on Motion of the Commission as to the Proposed Changes in Rates, Charges, Rules and Regulations of New York Telephone Company*, Case 28961; Opinion No. 85-17(A); 1986 N.Y. PUC LEXIS 210; 74 P.U.R. 4^{th} 590; 26 NYPSC 1357 (May 2, 1986).

At a minimum, the full 1991-98 data set can and should be used to test the reasonableness of the 6.5% X-Factor that the Commission had adopted. Even if the last three years' data were not available to the Commission at the time that the 6.5% value was established, it can certainly be used in an *ex post* analysis as to the reasonableness of the Commission's original decision. The Commission understood, when it adopted the 6.5% X-Factor, that it would be used *prospectively*, *i.e.*, outside of the 1986-95 period for which data was available and over which the TFP analysis had been conducted. The Commission was entitled to apply judgment as to whether a TFP result based upon pre-1997 conditions needed to be adjusted for post-1997 application. An *ex post* examination of the ILECs' performance under price caps at the 6.5% X-Factor and including the post-1995 time period will permit the validity of the Commission's determination to be tested empirically, using actual not forecast, real not hypothetical, conditions. The post 1995 data clearly has probative value in validating the 6.5% X-Factor that was adopted in the *Fourth Report and Order.*

In any event, if the 1996-98 data were to be excluded for purposes of the specific remand analysis — *i.e.*, the determination of the X-Factor that should have been adopted in the *Fourth Report and Order* for application beginning in 1997, there can be no question but that the full 1991-1998 data set should be relied upon for *prospective* determination of the X-Factor for application from this point in time forward. Once again, failure to consider this information would constitute arbitrary and capricious decision-making. The Commission cannot ignore relevant information.

V. The 0.5% Consumer Productivity Dividend Conservatively Reflected the Efficiency-Inducing Effects of Price Cap Regulation, and Its Retention Will Conservatively Reflect the Efficiency Gains Inuring to the ILECs as a Consequence of the Elimination of Sharing.

In its original ILEC price cap plan order, the Commission adopted a CPD as a 0.5% (*i.e.*, 50 basis point) upward adjustment to the X-Factor.[33] As explained by the Commission at that time:

> Taken together with the revised common line formula, the minimum required productivity offset figure represents a substantial, 40 percent increase in the plan's productivity hurdle. When the Consumer Productivity Dividend of 0.5 percent is added to assure that the first benefits of price caps flow to customers in the form of reduced rates, the total factor productivity offset to be applied by the LECs moves to 3.3 percent. When taken together with the added rate reduction incentives and requirements in the backstop mechanism, this productivity factor should produce substantial benefits to ratepayers in the form of lower rates. While it also establishes a more difficult productivity challenge for the LECs, we judge from the record in this proceeding that it remains a challenge they can meet and, given substantial profit incentives, exceed.[34]

The Commission recognized that adoption of incentive regulation was *expected* to result in increased efficiency — indeed, that outcome was one of the key goals of this new regulatory paradigm.[35] Under the preexisting rate of return regulation (RORR) system, it had been argued, ILECs had little incentive to reduce costs or increase utilization of their asset base because any gain in earnings that might result would necessarily be flowed through to ratepayers. Price cap regulation,

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33 *Second Report and Order,* at para. 100.

34 *Id.*

35 *Id.,* at para. 1.

by contrast, permitted ILECs to retain a significant portion of such earnings gains, thereby giving them incentives that simply were not present under RORR. All else being equal, these incentives were expected to result in lower costs overall, a condition that the Commission attempted to reflect in the CPD.

Analysis of actual results of ILEC operations both prior to and following the implementation of ILEC price cap regulation in 1991 confirm both that (a) the *concept* of the CPD was appropriate, in that ILEC productivity did in fact experience a significant improvement in the post-price cap period, and (b) that the 0.5% value assigned to the CPD was extremely conservative, in that the quantitative gain in ILEC productivity was significantly greater than that amount.

A. The basis for elimination of sharing.

In the *Fourth Report and Order* in CC Docket 94-1, the Commission ordered the elimination of sharing and the cap on ILEC earnings together with an upward adjustment in the X-Factor and the retention of the CPD. The basis for the Commission's action was summarized as follows:

> 147. Background. In the LEC Price Cap Performance Review, we found that sharing blunts the efficiency incentives that we sought to create with price cap regulation. Therefore, we tentatively concluded that sharing should eventually be eliminated. We also noted in the LEC Price Cap Performance Review and the Price Cap Fourth Further Notice, however, that sharing served a number of purposes in the price cap structure we then adopted. One such purpose was a "backstop" function, which helped ensure that any errors in the X-Factor did not lead to unreasonably high rates. A second purpose was a "flow-through" function, which helped ensure that LEC reductions in unit costs were passed through to their customers. We also found that sharing served a useful "matching" function in a price cap plan with two or more X-Factors by encouraging LECs to adopt an X-Factor that most closely matched their internally

> expected rate of productivity growth. In the Price Cap Fourth Further Notice, we proposed eliminating sharing if other mechanisms could be found to serve these functions, and we solicited comment on whether it might be possible to eliminate sharing from the price cap plan without replacing the three functions.

In their comments in response to the *Price Cap Fourth Further Notice*,[36] the ILECs argued that the sharing and earnings cap requirements of the original price cap plan should be eliminated in favor of a "pure price cap" arrangement under which the ILECs could indefinitely retain all earnings with no requirement that they share any portion thereof with ratepayers. In support of this position, the ILECs argued that the presence of sharing and an earnings cap attenuates their efficiency incentives by requiring that they flow through a portion of such gains, and all gains in excess of an earnings ceiling, to ratepayers.[37] On behalf of its ILEC members, USTA presented the results of a study conducted by Strategic Policy Research, Inc. (the "SPR Study") that attempted to quantify the magnitude of the potential gains that would result from the elimination of sharing and the cap on ILEC earnings.

In its decision, the FCC eliminated sharing and the cap on earnings because, in part, this action will improve ILEC efficiency,[38] and with respect to that expected efficiency gain, concluded that:

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36 *Price Cap Performance Review for Local Exchange Carriers*, Fourth Further Notice of Proposed Rulemaking, CC Docket No. 94-1, FCC 95-406, (rel. Sept. 27, 1995) ("Fourth Further Notice").

37 *Fourth Report and Order*, at para. 151 and Appendix B, paras 75, 76

38 *Fourth Report and Order,* at para. 148.